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ABSTRACT

A comparative-historical perspective was used in analyzing the readabilities of three newspapers and three magazines. A total of 270 100-word samples were collected from the Chicago "Tribune," the New York "Times," the Memphis "Commercial Appeal," "Cosmopolitan," "Atlantic Monthly," and "Harper's Weekly." All these media were published during the three sampled time periods--1904, 1933, and 1965. The Flesch readability formula showed that the three newspapers were significantly less readable than the magazines across all time periods. The readability of the magazines corresponded to a level at which some high school education would be needed to understand the material. No significant differences between magazines were found across time periods. Newspapers, however, were found to vary between sample periods: they were more difficult to read in 1933 than in 1904 or 1965. The newspaper readability levels corresponded to a "difficult" classification on the Flesch scale, with estimates that some college would be necessary to understand the material. The findings indicated that the newspaper is as readable today as it was in 1904, although the complexity of the language used has increased. (RL)

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THE COMPARATIVE READABILITY OF NEWSPAPERS AND MAGAZINES
OVER TIME: AN EVALUATION OF MEDIA ACCEPTABILITY

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For years, editors and publishers have disagreed about why various media continue to lose circulation and others expand and develop. From the late 1850's until the 1900's the growth of the newspaper as the nation's only mass medium seemed to keep pace with increases in population but with the sudden popularity of the magazine in the early 1900's, radio in the 1920's, and television in the late 1940's the ratio of newspapers per household has continued to drop and since 1970 averaged less than one subscription per household.¹ Magazines, on the other hand, have become a "phenomena of the 20th century" as they have become more specialized and have aimed themselves at demographically-similar target audiences.² There seems to be an ever-widening gap between population increases and the number of individuals in the 21-64 age group who utilize any type of the print media.³

Obviously, competition by the various media for the consumer's attention, increased production and circulation costs, economic conditions, postal regulations, and even newsprint shortages have had their effect, but one area which could account, in part, for decreases but which has had little empirical attention is the area of message construction--its readability--to see if its construction is in a form that can be consumed and understood by a majority of the potential readers.

Traditionally, researchers concerned with medium readability have focused on reader interest or demographic variables in attempts to explain why media aren't read. Rarely have they examined structural make-up and resulting "reading difficulty" of news items. In fact, a 1976 report by the American Newspaper Publishers Association⁴ indicates that only 15 of 469 readability studies have addressed the structural components of news items.

Assuming that readers are less likely to attend to items written in a style that is difficult to comprehend, this study is designed to look at the readability of magazines versus that of newspapers in a comparative-historical perspective--to see if they are more readable today than in the past or vice-versa.

A number of sociologists and communicologists have examined the variable of readability and its relationship to the publics' acceptability of news items. Researchers have looked at the inverted pyramid versus the narrative style of reporting news events,⁵ the effects of typography and layout,⁶ differences in the writing styles of newspapermen and authors,⁷ the comparative readability of newspapers over time,⁸ and a look at journalistic versus literary styles in 1933.⁹

Only four studies have made a comparative analysis of media readability or looked at media readability in a time context.

A 1933 study by Marjorie Fisk¹⁰ compared the readability of journalistic writing and literary English writing for the year 1933. Though she did not use any type of readability

formula, she concluded that there was little difference, overall, between the readability of journalistic and literary materials.

In a historical comparison of the readability of "responsive" and "stable" newspapers since 1872, Stevenson found that the readability of responsive (sensational) papers had declined since the days of yellow journalism while the readability of stable (conservative) papers had improved.¹¹

A third study by Sears and Bourland in 1970 examined literary works of journalists and non-journalists (prominent American authors with and without journalistic backgrounds) concluding they "possess the three qualities upon which rhetoricians have always insisted; clearness, force and beauty."¹²

Fowler, in a 1978 study, combined the attributes of these studies into one and compared the readability of newspapers and best-selling novels during similar time periods and noted that "the comparative readability of the newspaper front pages was far below that of sampled best-selling novels published in the same time periods."¹³

This study wishes to extend that study and compare the readability of newspapers and magazines during similar time periods and view their relationships.

More specifically, this study asks: Has the comparative readability of newspapers and their style paralleled that of magazines during the 20th century or has the magazine, like that of the best-selling novel, been easier for the American reader to digest and understand?

METHODOLOGY

The sampling procedures and techniques used in this study were similar to those employed in the 1978 newspaper/best-selling novel study.

The study period consisted of three one-year periods selected randomly from the periods 1895-1910, 1930-1945, and 1960-1975. They were 1904, a year representing the yellow journalism period and a period examined by Stevenson; 1933, a period mid-way between the yellow journalism period and the present and similar to the sample gathered by Fisk; and 1965, a year representative of the era following the advent of television.

Newspapers and magazines were purposively selected because of their availability. The three newspapers were the Chicago-Tribune, the New York Times, and the Memphis Commercial Appeal and the three magazines were Cosmopolitan, Atlantic Monthly, and Harper's Weekly. All media were published during the three sampled time periods.

A total of 270 100-word samples were analyzed. Magazines and newspapers were each represented by 135 randomly selected 100-word passages; 45 samples per time period. Five 100-word samples were taken from the front pages of three issues of each newspaper and from three editions of each magazine for each of the three sample years. Photo outlines and items less than 100 words were eliminated if selected. Readability was based on the revised Flesch readability formula¹⁴ which utilized

average sentence length and average number of syllables per 100 words to compute readability scores.

Means were computed for the three newspapers and the three magazines for each time period and a separate mean was computed for the entire category at each date. T tests were used to compare sample means and the $p < .05$ alpha level was required for statistical significance.

Coder reliability was obtained by having an independent coder re-code 27 randomly selected passages (10 per cent of the study data). Pearson product-moment correlations between the author and the coder were found to be greater than .95 for number of syllables per 100 words, average sentence length, and for the resultant Flesch readability scores. Using the t statistic, all were found to be significant beyond the $p < .01$ alpha level.

FINDINGS

The resultant readability scores for the three sample newspapers were found to be significantly lower than those for magazines across all time periods (see Table 1).

The overall mean for magazines across time periods of 58.80 corresponds to what Flesch terms "fairly difficult" reading (a score of 60 would place the material into a "standard" classification)--a level at which some high schooling would be needed to understand that level of writing. No significant differences were found between magazines scores across time periods.

TABLE 1

Flesch Readability Scores for Newspapers and Magazines by Year

<u>Time Period</u>	<u>Magazines</u>	<u>Newspapers</u>	<u>T-test</u>	<u>p</u>
1904	58.56	47.00	-4.08	.000
1933	59.20	37.38	-7.54	.000
1965	58.64	44.00	-5.83	.000

(N = 270; 45 per group)

NOTE: the higher the readability score the easier the material is to read.

Newspapers, however, were found to vary significantly between sample periods. Newspapers were significantly more difficult to read in 1933 than in 1904 ($t = 2.08$, $p = .047$) but then somewhat easier to read in 1965 as compared to 1933 ($t = 2.34$, $p = .022$). Readability scores for the years 1904 and 1965 were somewhat comparable. Readability levels corresponding to the 37 to 47 Flesch values received by newspapers are termed "difficult". Although it is debatable whether the resultant reading levels are equivalent at these three time periods, Flesch estimates that some college would be necessary to understand material written at this difficulty level.

No significant differences were found between the three newspapers at any of the time periods.

As with readability, the average number of syllables per 100 words and the average sentence length for newspapers and magazines were found to differ significantly for all three time periods (see Tables 2 and 3).

TABLE 2
Average Number of Syllables Per 100 Words
for Magazines and Newspapers by Year

<u>Time Period</u>	<u>Magazines</u>	<u>Newspapers</u>	<u>T-test</u>	<u>p</u>
1904	144.93	154.91	3.96	.000
1933	146.07	166.56	7.43	.000
1965	147.71	167.78	7.10	.000

(N = 270; 45 per group)

TABLE 3
Average Sentence Length in Number of Words
for Magazines and Newspapers by Year

<u>Time Period</u>	<u>Magazines</u>	<u>Newspapers</u>	<u>T-test</u>	<u>p</u>
1904	25.44	28.47	1.94	.05
1933	23.69	28.82	3.70	.000
1965	22.89	21.82	-.87	.385

(N = 270; 45 per group)

For newspapers, the average number of syllables per 100 words increased significantly from 154.91 to 166.56 ($t = 4.34$, $p = .000$) between 1904 and 1933 but leveled off in 1965. The average number of words per sentence was found to vary little between 1904 and 1933 but decreased significantly ($t = 5.26$, $p = .000$) by seven words per sentence in 1965.

No significant differences were found in the average number of syllables per 100 words or in the average number of

words per sentence for magazines during the three sample periods. Somewhat like newspapers though, the average number of syllables per 100 words increased slightly between 1904 and 1965 while average sentence length in number of words decreased for the same period.

It was also noted that although there was not a significant difference between the average number of words per sentence for newspapers and magazines in 1965, the average number of syllables per 100 words for newspapers was significantly greater than that for magazines (167.78 to 147.71) and thus the more difficult the material.

CONCLUSIONS AND DISCUSSION

In general, one finds that while the readability of the magazine has remained fairly constant during the 1904, 1933, and 1965 time periods, the readability of newspapers has changed. In both 1904 and 1965 the newspaper was somewhat easier to read than in 1933 even though that level, according to Flesch, is significantly more difficult to understand than the level attained by magazines.

One might explain the differences in newspaper readability by the types of reporting and/or audience-awareness during the particular time periods sampled. Readability levels would seemingly be simple and easy during the yellow journalism era when sensationalism was aimed at mass audiences but why the newspaper was more difficult in the 1930's when times were hard and audiences and their income would be greatly appreciated is unclear.

Concentrations of hard news on the front pages of the sample newspapers could have contributed to the differences in reading difficulty. Smaller differences might have occurred had inside-page material (featurey or soft news) been compared but the purpose of this study was to examine the newspaper's front page--the cover which first catches the readers' attention.

Magazines, unlike newspapers, consistently attained a 10th grade readability level and did not vary significantly in either average sentence length or in average number of syllables per 100 words--both functions of the readability score. It appears that both media have taken steps (though not necessarily intentionally) to simplify their writing by decreasing sentence lengths, but the increase in multi-syllable words, particularly on the part of newspapers, has partly negated those efforts. It is possible that an increase in language complexity and a need for precision has occurred since the early 1900's and those efforts now require more complex terminology.

At a time when students are reportedly being graduated from high school unable to read or write and when media reading is decreasing by the year, newspapers and magazines alike should take a closer look at readability and its relationship to circulation and mass acceptance. It is recognized that magazine and newspaper groups have instituted programs to introduce students to the media in education but they have not necessarily made the media accessible to them--readability wise--when they then examine the media on their own outside of class. Attempts must be made to insure that when interest is kindled that the student can

access the media for further detail and understand or at least be able to read what information it contains.

One cannot say that readability is the only means of increasing circulation or that a more readable (easier) item could cause people to read it. The industry must, however, contemplate the consequences of producing products that large segments of the population find difficult to use and understand. It is possible that there is a point of diminishing returns where high readability is bad and where the newspaper or magazine is viewed as talking down to its audience? The industry has apparently not tried to isolate such a common denominator.

Although no attempt was made to classify sampled materials into content types, a more accurate picture of this situation might be seen if the present study were replicated using news-type magazines (i.e., Time or Newsweek) to see if in fact, magazines and newspapers differ in the presentation or readability of similar-types of content matter.

The findings of this study indicate that the newspaper is as readable today as it was in 1904 although the complexity of the language it uses has increased. The magazine, on the other hand, like the novel is significantly more readable than that of sampled newspapers published in the same time periods.

FOOTNOTES

¹Melvin L. Defleur and Sandra Ball-Rokeach, Theories of Mass Communication (New York: David McKay CO., Inc., 1975), p. 30.

²Peter Sandman, David Rubin, and David Sachsman, Media: An Introductory Analysis of American Mass Communications, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1975)

³Facts About Newspapers 1976, American Newspaper Publishers Association, (Washington, D.C.: 1976).

⁴"Newspaper Readership and Circulation," ANPA News Research Report No. 3 (May 27, 1977).

⁵Jean S. Kerrick, "The Inverted Pyramid Style and Attitude Change," Journalism Quarterly, 36:479-482 (fall 1959).

⁶John S. Davenport and Stewart Smith, "Effects of Hyphenation, Justification, and Type Size on Readability," Journalism Quarterly, 42:382-388 (summer 1965).

⁷Donald A. Sears and Margaret Bourland, "Journalism Makes the Style," Journalism Quarterly, 47:504-509 (autumn 1970).

⁸Robert L. Stevenson, "Readability of Conservative and Sensational Papers Since 1872," Journalism Quarterly, 41: 201-206 (spring 1964).

⁹Marjorie Fisk, "Comparing Journalistic and Literary English," Journalism Quarterly, 10:282-288 (September 1933).

¹⁰Fisk, op. cit.

¹¹Stevenson, op. cit.

¹²Sears, op. cit.

¹³Gilbert Len Fowler, Jr., "The Comparative Readability of Newspapers and Novels," Journalism Quarterly, 55:589-592 (autumn 1978).

¹⁴Rudolph Flesch, The Art of Readable Writing (New York: Harper & Brothers Publishers, 1949).